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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter R. Snoeren

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Hologic Patent Department
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EXAMINER

RASHID, DAVID

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

03/10/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/623,191	Applicant(s) SNOEREN ET AL.	
	Examiner DAVID P. RASHID	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-17,19-30 and 32-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6-17,19-30 and 32-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

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Continued Examination Under 37 C.F.R. § 1.114

[1] A request for continued examination under 37 C.F.R. § 1.114, including the fee set forth in 37 C.F.R. § 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 C.F.R. § 1.114, and the fee set forth in 37 C.F.R. § 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 C.F.R. § 1.114. Applicant's submission filed on Nov. 28. 2008 has been entered.

Amendments & Claim Status

[2] This office action is responsive to Amendment received on Nov. 28. 2008. Claims 1, 4, 6-17, 19-30, and 32-40 remain pending; claims 2-3, 5, 18, and 31 cancelled.

Specification

[3] In response to Amendments to the Specification received on Nov. 28. 2008, the previous specification objections are withdrawn.

Claim Objections

[4] In response to Amendments to the Claims received on Nov. 28. 2008, the previous claim objections are withdrawn.

Claim Rejections - 35 U.S.C. § 112

[5] The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Lack of Enablement

MPEP § 2107.01(IV) reads, in relevant part:

A deficiency under >the utility prong of< 35 U.S.C. § 101 also creates a deficiency under 35 U.S.C. § 112, first paragraph. See *In re Brana*, 51 F.3d 1560, 34 USPQ2d 1436 (Fed. Cir. 1995); *In re Jolles*, 628 F.2d 1322, 1326 n.10, 206 USPQ 885, 889 n.11 (CCPA 1980); *In re Fouche*, 439 F.2d 1237, 1243, 169 USPQ 429, 434 (CCPA 1971) (“If such compositions are in fact useless, appellant’s specification cannot have taught how to use them.”). Courts have also cast the 35 U.S.C. § 101 /35 U.S.C. § 112 relationship such that 35 U.S.C. § 112 presupposes compliance with 35 U.S.C. § 101. See *In re Ziegler*, 992 F.2d 1197, 1200-1201, 26 USPQ2d 1600, 1603 (Fed. Cir. 1993) (“The how to use prong of section 112 incorporates as a matter of law the requirement of 35 U.S.C. § 101 that the specification disclose as a matter of fact a practical utility for the invention. ... If the application fails as a matter of fact to satisfy 35 U.S.C. § 101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. § 112.”)

Claims 1, 4, 6-17, and 19-26 are rejected under 35 U.S.C. § 101 because the claimed invention is not supported by either a substantial asserted utility or a well established utility. *See* 101 USC § 101 rejection above.

Claims 1, 4, 6-17, and 19-26 are also rejected under 35 U.S.C. § 112, first paragraph. Specifically, since the claimed invention is not supported by either a substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

[6] The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Indefinite Limitations

M.P.E.P. § 2143.02(I) reads, in relevant part:

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If a claim is subject to more than one interpretation, at least one of which would render the claim unpatentable over the prior art, the examiner should reject the claim as indefinite under 35 U.S.C. 112, second paragraph (*see* M.P.E.P. § 706.03(d)) and should reject the claim over the prior art based on the interpretation of the claim that renders the prior art applicable. *Ex parte Ionescu*, 222 USPQ 537 (Bd. Pat. App. & Inter. 1984) (Claims on appeal were rejected on indefiniteness grounds only; the rejection was reversed and the case remanded to the examiner for consideration of pertinent prior art.).

Claims 27-30 and 32-38 are rejected under 35 U.S.C. § 112, second paragraph for containing indefinite limitations in using the phrase “configured to” (e.g., “a processor configured to generate a joint pixel value histogram. . .” at claim 27, emphasis added).

A first interpretation allows an apparatus element having hardware configuration capable of performing its intended step (i.e., a processor having the hardware configuration capable of generating a joint pixel value histogram).¹ A second interpretation allows that it is in fact doing so. The Examiner suggests positively reciting elements and their purpose without any possible ambiguity (e.g., “a processor ~~configured to generate~~ generating a joint pixel value. . .”). Claims 28-30 and 32-38 are rejected by dependency.

Claim Rejections-35 U.S.C. § 101

[7] 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

In Re Bilski- “Tied To” Criteria and/or Qualifying “Transformation”

Claims 1, 4, 6-17, and 19-26 are rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent² and recent Federal Circuit decisions³ indicate that a statutory “process” under 35 U.S.C. § 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject

¹ See “configure, n.”, Merriam-Webster Dictionary, 11th ed. 2008), < <http://www.merriam-webster.com/>> (citing “to set up for operation especially in a particular way”)

² *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

³ *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

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matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

A process must have either a meaningful tie to an “apparatus”, or “machine”, or the process must perform a qualifying transformation. With regard to (1) above, insignificant pre- or post-solution activity involving an “apparatus”, or “machine” is not a meaningful tie. Claim 1 does not recite such pre- or post-solution activity to be considered. The machine required must be significant to the inventive concept (and not pre- or -post processing, or intended use statements). In addition, when such machine is introduced and significant to the inventive concept, it must be a particular machine (e.g., a “processor”, not a “machine”).

With regard to (2) above, the pixels in the video image do not represent a physical object, nor is there any modification with external depiction separate from any insignificant pre- or post-solution activity, or intended use statements as recited immediately above. Claims 1 and 14 are rejected for the reasons given above. Claims 4, 6-13, 15-17, and 19-26 are rejected for failing to alleviate the § 101 rejection of their dependent claim.

Functional Descriptive Material Residing on Non-statutory Subject Matter

The USPTO “Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility” (Official Gazette notice of 22 November 2005), Annex IV, reads as follows (see also MPEP 2106):

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

Claims 39-40 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 39-40 are drawn to functional descriptive material (“code for. . .”) recorded on a “computer readable medium”. Normally, the claim would be statutory. However, the specification (U.S. Pub. No. 2005/0013471 at para.0015) defines or exemplifies the claimed computer readable medium as encompassing statutory media such as a “computer readable storage medium” as well as *non-statutory* subject matter such as a “computer network wherein program instructions are sent over optical or electronic communication lines.”

Sending program instructions over an optical or electronic line would be of a signal form. “A transitory, propagating signal ... is not a “process, machine, manufacture, or composition of matter.” Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such a signal cannot be patentable subject matter.” *In re Nuijten*, 84 USPQ2d 1495 (Fed. Cir. 2007).

Because the full scope of the claim as properly read in light of the disclosure appears to encompass non-statutory subject matter (i.e., because the specification defines/exemplifies a computer readable medium as a non-statutory signal, carrier waver, etc.) the claim as a whole is non-statutory. The examiner suggests amending the claim to include the disclosed tangible computer readable storage media, while at the same time excluding the intangible transitory media such as signals, carrier waves, computer networks, optical/electronic communication lines, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

Allowable Subject Matter

[8] **Claims 1, 4, 6-17, 19-26, and 39-40** would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 101 and 35 U.S.C. § 112, first paragraph set forth in this Office action.

Claims 27-30 and 32-38 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112, second paragraph set forth in this Office action.

Conclusion

[9] Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID P. RASHID whose telephone number is (571)270-1578 and fax number (571)270-2578. The examiner can normally be reached Monday-Friday 7:30-17:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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